

societies of vast and rapidly-increasing numbers of persons of grossly inferior intelligence constitutes a serious maladjustment of man to his present environment. The causes of this sinister phenomenon have been carefully investigated and are sufficiently well understood to bring them within the sphere of remedial action. The rise and growth of a "moron" population is surely a matter that merits attention from sociologists.

In his treatment of Eugenics Professor Ogburn is not very satisfactory. It is clear that he does not take the subject quite seriously, and he even shows a little obscurity as to the goal of Eugenic endeavour. Thus (p. 338) he observes that "The programme of eugenics is a programme which attempts to achieve desirable changes in biological man"; and on the following page: "Careful readers of biology, therefore, realize that any idea of changing the biological nature of man is a very ambitious one," "at present the knowledge necessary for the control desired in eugenics is meagre"; and he concludes: "Practically, therefore, a rapid, controlled change in the inherited biological nature of man seems almost impossible for the present."

Thus, the purpose of Eugenics seems to be conceived as the production of radical changes in the nature of man; with the evolution of a super-man. If some such idea may have existed in the minds of the enthusiastic pioneers of the past, it has little connection with modern Eugenics; which contents itself with the modest programme—easily capable of realization—of maintaining the normal standard of human quality which has been reached by natural selection and of securing the race against the progressive degeneration which threatens civilized man as the result of the dysgenic, and purely artificial, selection occasioned by the differential birth-rate.

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Gates, R. Ruggles, Ph.D., F.L.S., Professor of Botany in the University of London. *Heredity and Eugenics*. London, Constable & Co., 1923, pp. 8+278, with 35 illustrations.

A Book on abnormalities of human structure and their inheritance written by a botanist is certainly a rare object. Professor Gates is, of course, well-known for his studies on the cytological basis of inheritance, but none of his previous publications have had any reference to animals, to say nothing of man, nor have any of his researches touched the animal side of biology. It is therefore rather a daring stroke on his part to become the author of a book dealing with human characters, and one which invites criticism in advance. Nevertheless we must admit that Professor Gates stands the test well. His book commencing with the usual stereotyped exposition of the Mendelian Theory of heredity and its chromosomal basis proceeds to give a most valuable compilation of all the known abnormalities of human structure and to record what is known of their inheritance. These range from colour blindness and polydactyly to such small deviations from type as left-handedness. This section of the book will render it a valuable addition to the libraries of all who are interested in human heredity. In dealing with the inheritance of mental qualities—ininitely the most important division of the subject—Professor

Gates proceeds with a praiseworthy caution. Whilst he gives an account of the somewhat wild attempts of Davenport and other American authors to analyse the human mind into "factors," he abstains from committing himself to acceptance of them. He gives the evidence for regarding feeble-mindedness as a Mendelian recessive character, and he makes the acute and valuable observation that this implies that it has originated from the normal type by a mutation of defect, and that consequently feeble-minded individuals occurring amongst the higher races are not to be regarded as "reversions" to the primitive ancestors of man. This point we regard as one of enormous importance: there are in fact two totally different types of Eugenic problem, one of which we may term the British and the other the American, though of course both types are found in both countries but in different degrees of intensity. The British problem is the "sub-man," as Dr. Austin Freeman calls him, i.e., the mendelian recessive. In earlier and less sentimental times he was left to his own resources and was in large measure weeded out by natural selection, but in these days of maudlin sentiment he is not only preserved alive, but is allowed to propagate unrestrictedly and pollute the population with his offspring. The American problem is the contact of different races which are at very different levels of evolution. No easy way of dealing with this problem suggests itself and we do not envy our American confrères the task of grappling with it. We think at any rate that many of them are beginning to see that that famous sentence of their constitution "All men are created free and equal" is the expression of a profound error. Incidentally we may remark that we feel sure that Prof. Gates goes astray when he suggests that the racial distinguishing marks have any analogy with mutations, for example that the fair hair and pale skin of the Nordic race are allied to albinism. The racial marks, in the opinion of our best anthropologists, are adaptations which have been slowly acquired through milleniums of evolution in response to the environment; in a word they are examples of functional inheritance.

The last section of Prof. Gates's book deals with the social and world aspects of Eugenics—and he has already incurred severe criticism for following Carr-Saunders who in his recent book on "Population" minimised the importance of the law of Malthus. We think that the critics have been unfair to Prof. Gates. Like all biologists he is aware of the inexorable necessity of the law of Malthus which is only the application to human affairs of Darwin's struggle for existence. All that Gates has done is to suggest that the improvement of means of food production has postponed the time when the incidence of this struggle will be severely felt. He definitely refuses to follow Carr-Saunders, whose book is largely an attempt to twist well known biological facts into a shape more acceptable to labour socialism, when this author maintains that the innate capacities of all human races are pretty much alike, and that there are no grades of inborn intelligence among the different strata of British society. Carr-Saunders it will be remembered maintains that there is an "automatic" regulation of population to food supply and that therefore it is superfluous to advocate birth-control. It is perfectly true that nature will not allow

population to increase beyond its capacity to obtain food—but Nature's means of regulation, as for instance, the Irish famine of 1846, the Russian famines of 1919 and 1920 and the frequently recurring famines in India and China are awful to contemplate. It is one of the main tasks of Eugenic Science to devise other and more humane methods of regulation.

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Newman, Sir. George, M.D., Chief Medical Officer of the Ministry of Health and the Board of Education. *Recent Advances in Medical Education in England*. H.M. Stationery Office, Kingsway, and 23, Forth Street, Edinburgh; and from E. Ponsonby, Ltd., 116, Grafton Street, Dublin. London, 1922. 1/3.

THIS report of some 200 pages gives a very complete account of the whole range of medical education; but its chief interest lies in the description of the new clinical units, which have been established at a few of the medical schools, and it will be of interest to consider how these have fulfilled the expectations raised at their formation. Up till about 1920 teachers of clinical subjects in our Medical Schools were almost exclusively physicians and surgeons or specialists on the staffs of the voluntary hospitals, who combined the treatment of the sick poor with the instruction of the coming generation of general practitioners, but who made their livelihood by means of consulting practice. Such men as a general rule had no time for research. Although in a few cases, as their practice became more exacting, their teaching and their hospital work suffered. The majority carried out their duties nobly, and they received little if any direct remuneration for their services, this came indirectly from consulting practice. The teaching they gave was an excellent practical teaching for the average doctor; but it lacked the "University" element, in that the men were not being taught by those who were themselves advancing knowledge in their subject. With the advent of the modern experimental medicine the technique of research was becoming too complicated to be adopted by consultants in general although these men must be regarded as the heads of their profession.

The essence of the new scheme of clinical units which have been in existence now for three or four years is that the director and his assistants shall give the chief part, if not the whole of their time, to their hospital work, and in particular to teaching and research, and they are remunerated accordingly. Medical, Surgical, and at one school obstetric and gynaecological units have been established.

It is a disputed point as to whether the director who is in most cases a University Professor, shall be really whole-time or allowed a limited amount of private practice. Ideally he should be a man of a different stamp from the average member of the Staff, a man whose main outlook on life should be research and a man with considerable laboratory as well as clinical experience. Such a man will find enough to occupy himself with investigating the common diseases in his wards and he will not particularly wish for private practice. He will choose the less remunerative post, because it interests him. It is